

# Model HI 2151/30WC Multipurpose Weight Controller

## Applications

### PROCESS WEIGHING

- Batching/Blending
- Filling/Dispensing
- Level-by-Weight
- Check Weighing
- Force Measurement
- Rate/Flow Monitoring



## Features

### WAWERSAVER®

- Ignores vibration on and around scales

### C2® Electronic Calibration

- Electronic calibration without test weights



### INTEGRATED TECHNICIAN®

- Weighing system monitoring and troubleshooting

### SMM (Secure Memory Module)

- Expandable automatic backup of configuration data for easy transfer to other instruments or your PC

### Built-in Relays

- Form C
- Independent, setpoints, preact, deadband

Hardy has always prided itself with the idea of taking a good product design and making it better. We believe that it is easier for the user to learn the new items/features, than to learn a whole new product. The HI 2151/30WC Weight Controller follows that line of thinking, just as it has in previous versions since 1982. We've taken all the great aspects of the HI 2151/20WC Weight Controller and added features and improved functionality to make installation, setup, and system diagnostics easier than ever before.

### PRODUCT DESIGN

The basic design of the HI 2151/30 has remained the same on all our multipurpose weight controllers to provide an easy upgrade path. Hardy understands the difficulties in replacing a unit and the space limitations on control panels. That's why we design our products so you can replace an old unit with a new one using the same enclosure cutout.

### DISPLAY

The six digit alpha-numeric red LED display allows for ease of use in reading weight values as well as reading menus. A 30 segment bar graph is standard and can be programmed for various modes and uses.

### FRONT PANEL

The front panel keypad and menus follow the same pattern. The current menus and features have been enhanced, but the front panel keys have remained the same. There is no need to relearn features and functions of an instrument when a new one is installed.

### SETPOINT CONTROL

The HI 2151/30WC can independently control as many as eight relays based on either net, gross, rate-of-change, peak hold or totalized weight values. Each relay has its own individual preact to compensate for in-flight material, and deadband to compensate for relay chatter.

### ONE MILLION COUNTS OF RESOLUTION

The HI 2151/30WC has 1,000,000 counts of resolution yielding better control, accuracy and recording in weighing applications. This is 25-50 times more than the typical weight controller resolution. You can tolerate large dead loads, over sizing of load cells, and still have an abundance of resolution to work with.

### C2® ELECTRONIC CALIBRATION

C2 enables electronic calibration of the weigh system without test weights. This saves system start-up costs and aggravation.

### WAWERSAVER®

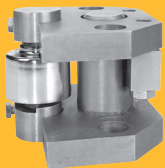
WAWERSAVER eliminates the effects of unwanted plant vibration on or around the scale by permitting the weigh module to "see" through the unwanted vibration signals - as low as 0.25Hz - while yielding a stable actual reading.

**SECURE MEMORY MODULE** The rear panel accessible Secure Memory Module (SMM) automatically protects and stores critical data. It allows this data to be physically transferred from one indicator to another. If a problem occurs, simply remove the current SMM and plug it into a new indicator, and your system will be up in running in minutes.

# COMPONENTS TO COMPLETE YOUR HARDY SYSTEM

## Hardy Bench Scales, Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scale bases to accommodate your application requirements.



ADVANTAGE Series Load Point with C2 Calibration



ANY-WEIGH Scales

## Hardy C2 Certified Cable

This 8-conductor cable is designed for optimizing weight and load sensor characteristic signals from the junction box to the instrument.

## Hardy Junction Box (HI 215IT Series) with INTEGRATED TECHNICIAN

This NEMA 4 rated waterproof enclosure sums from one to four load sensor signals. Its unique design allows for easy electronic isolation and troubleshooting of the weighing system.



**HARDY**  
**PROCESS SOLUTIONS**  
 Measurement • Automation • Productivity

## SPECIFICATIONS

### Display

- Alpha-numeric: 6 digit, 14 segment red LED
- Bar Graph: 30 segment LED

### Update Rate

- 20 times per second

### Averaging

- Sliding up to 200 readings in single unit increments

### Resolution

- Display: 1:985,000 (3mV/V load cells)
- Internal: 1:1,048,000

### Accuracy

- 0.0015% non-linearity

### Stable Weight Reading

- WAVEDSAVER® 0.25Hz minimum

### Calibration Techniques

- C2® electronic calibration
- Traditional calibration with test weights

### Setpoints

- Two internal Form C relays
- Setpoint (target weight)
- Preact (trip point)
- Deadband (reset)
- 115 VAC, 3 amp, Form C

### Data Security

- Secure Memory Module (SMM)

### Built In Diagnostics

- INTEGRATED TECHNICIAN (IT)®

### Load Point Excitation

- 5 VDC internal power supply to drive up to eight 350-ohm load cells

### Standard Networking Options

- RS 232: Full duplex (-A1)
- EIA 422: Full duplex (-A2)
- EIA 485: Half duplex (-A3)
- Hardy Link LAN

### Common Mode Rejection

- 100 dB at 50-60 Hz

### Power Requirement

- 120/240 VAC, ±10 %, 47-63Hz
- 10 watts with options installed

### Operating Temperature

- -10° to +50°C (14° to 122°F)

### Humidity

- 0-90% non-condensing

### Inputs

- 8 remote functions

### Approvals

- CE, NTEP, Canada Weights & Measures
- FM Class I, II, III Div. 2 Groups A-G
- UL pending

### Warranty

- Two-year warranty against defects in workmanship

All specifications subject to change without notice. Please contact the Hardy factory or visit our website for the latest specifications.

## Enclosures

### PANEL MOUNT

- Display rating: NEMA 4X
- Depth: 10" (254 mm)
- Panel cutout: 3.09" x 5.75" (78.4 x 146 mm)
- Weight: 4.6 lbs (2.1 kg)

### REMOTE MOUNT

- Display rating: NEMA 4X
- Dimensions: 3.23" H x 5.74" W x 10.40" D (82.04 H x 145.8 W x 264.2 D mm)
- Panel cutout: 3.09" x 5.75" (78.4 x 146 mm)
- Weight: 4.6 lbs. (2.1 kg)
- Display mounts separately from the instrument body via a 5-foot cable

### BLIND REMOTE MOUNT

- Dimensions: 3.23" H x 5.74" W x 10.40" D (82.04 H x 145.8 W x 264.2 D mm)
- Weight: 4.5 lbs (2.1 kg)

• Output option or portable display must be purchased with this unit

### WALL MOUNT

- Enclosure rating: NEMA 4X (stainless steel)
- Dimensions: 14.25" H x 12.25" W x 6.00" D (361.95 H x 311.15 W x 152.4 D mm)
- Weight: 19.8 lbs (9 kg)

## MODELS

HI 2151/30WC

Panel mount unit

HI 2151/30WC-RM

Remote mount unit. Display can mount up to 5 feet from the instrument body.

HI 2151/30WC-BR

Blind remote mount. Keyboard/display is not included.

HI 2151/30WC-WS

Wall mount unit. NEMA 4X stainless steel

## OPTIONS

- Analog Output
- Parallel BDC
- BDC Termination boards
- DDE I/O Server
- Remote I/O
- Profibus
- 240 VAC, 50-60Hz
- Intrinsic Barriers

- TTL Level output
- Setpoint relay option card
- Totalization
- Rate-of-change
- Peak Hold
- Portable Display
- NIST/NTEP

## Hardy Process Solutions

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**ISO 9001:2008**  
**CERTIFIED**  
 Since 1993

To learn more about the HI 2151/30WC visit our website:

www.hardysolutions.com  
 or call us:  
 800-821-5831

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